

6/4/2018

Print

## Purchasing Receipts



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due
PO039927	ACI001-VC	4	1	Net 30	MT-4140-B-1.000X1.000	4140 Steel Bar 1.000 X 1.000 : AISI 4140N STEEL BAR PER MIL-S-5626, AMS 6382, AMS 6349, AMS 6529 receive ft				24	6/5/2018	12		S077651 x12 S077677 x12	Stock	6/4/2018	\$ 20.42 / ft	0	
		6			MT-4140-R4.000	AISI 4140 Round Bar MATERIAL: AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529				12		12		S077652	Stock	6/4/2018	\$ 90.70 / ft	0	
		7			MT-4140-S-2.750X5.000	4140 Steel Sheet 2.750 X 5.000 : MATL: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft						12		S077653	Stock	6/4/2018	\$ 133.17 / ft	0	
		8			MT-4140-S-1.250X2.000	AISI 4140 Steel Bar : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395				6		6		S077654	Stock	6/4/2018	\$ 35.83 / ft	0	
		10			M303B1.000X2.000	303 Bar 1" X 2" : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				12		13		S077655	Stock	6/4/2018	\$ 68.92 / ft	0	
		13			MT-4140-S-2.250X3.000	AISI 4140 Steel Sheet 2.250" x 3.000" : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395						12		S077656	Stock	6/4/2018	\$ 74.33 / ft	0	
		14			MT-4140-S-0.375X4.500	AISI 4140 Steel Sheet/Plate MATL: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395						12		S077657	Stock	6/4/2018	\$ 29.50 / ft	0	
Total:										90		79							

Plex 6/4/2018 1:56 PM Dart.Dubois.Pascal



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER PO039927**

**Supplier:** ACI001-VC  
Acier Ouellette Inc.  
935 Boul. Du Havre  
Valleyfield  
QC  
J6S 5L1 Canada  
Phone: 800 667 4248  
Fax: 450 377 5696

**PO No:** PO039927

**PO Date:** 5/17/18

**Due Date:** 5/22/18

**Purchase Order  
Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
clavoie@dartaero.com

*REVISED*

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground

**Pynt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

## Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M1018R0.187		M1018R0.187 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108 receive ft	Firmed	5/22/18	12 ft	0 ft	12 ft	\$0.125833/ft	\$1.51
2	M304R.313		304 SS Round bar .313 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	5/22/18	12 ft	0 ft	12 ft	\$0.91/ft	\$10.92
3	M304R.500		304 SS roundbar .500 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	5/22/18	144 ft	0 ft	144 ft	\$2.3345/ft	\$336.17
<b>Line Item Note</b> 12 length of 12 ft										
4	MT-4140-B-1.000X1.000		4140 Steel Bar 1.000 X 1.000 : AISI 4140N STEEL BAR PER MIL-S-5626, AMS 6382, AMS 6349, AMS 6529 receive ft	Firmed	5/31/18	24 ft	0 ft	24 ft	\$20.41666/ft	\$490.00

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	MT-4140-R1.625		AISI 4140 Round Bar MATERIAL: AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529	Firmed	5/22/18	20 ft	0 ft	20 ft	\$10.291/ft	\$205.82
6	MT-4140-R4.000	CUT TO 7" LENGHT	AISI 4140 Round Bar MATERIAL: AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529	Firmed	5/25/18	12 ft	0 ft	12 ft	\$90.69666/ft	\$1,088.36
Line Item Note 2 pcs of 6 ft										
7	MT-4140-S- 2.750X5.000		4140 Steel Sheet 2.750 X 5.000 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft	Firmed	5/22/18	12 ft	0 ft	12 ft	\$133.16666/ft	\$1,598.00
Line Item Note 2 pcs of 6 ft										
8	MT-4140-S- 1.250X2.000		AISI 4140 Steel Bar : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	5/22/18	6 ft	0 ft	6 ft	\$35.8333/ft	\$215.00
9	MT-1144-R0.500		1144 Steel Proof Round Bar 0.500"	Firmed	5/22/18	20 ft	0 ft	20 ft	\$1.1755/ft	\$23.51
10	M303B1.000X2.000		303 Bar 1" X 2" : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE	Firmed	5/25/18	12 ft	0 ft	12 ft	\$68.91666/ft	\$827.00

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
11	M6061T6B0.375X1.000		6061T6 Bar .375 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	5/18/18	40 ft	0 ft	40 ft	\$1.575/ft	\$63.00
12	M4130NS.080		AISI 4130 Steel Sheet : MATERIAL: AISI 4130N STEEL SHEET AS PER OR AS PER AMS 6345 MIL-S-18729 OR AMS 6350 OR AMS 6351	Firmed	5/22/18	18 sf	0 sf	18 sf	\$22.005555/sf	\$396.10
<b>Line Item Note</b> 1 PCS 3 FT X 6 FT										
13	MT-4140-S-2.250X3.000		AISI 4140 Steel Sheet 2.250" x 3.000" : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	5/22/18	12 ft	0 ft	12 ft	\$74.3333/ft	\$892.00
<b>Line Item Note</b> 2 pcs of 6 ft										
14	MT-4140-S-0.375X4.500		AISI 4140 Steel Sheet/Plate MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	5/30/18	12 ft	0 ft	12 ft	\$29.50/ft	\$354.00
<b>Line Item Note</b> 2 pcs of 6 ft										
<b>Grand Total:</b>										<b>\$6,501.39</b>

## Order Notes

## Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 5/17/18 2:39 PM dart.lavoie.chantal



## DELIVERY - CLIENT

CO00090241

**ACIER OUELLETTE INC.**  
935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl.: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl.: 514-336-4246 Ext.: 866-456-4242

### Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,

Instruction F-M

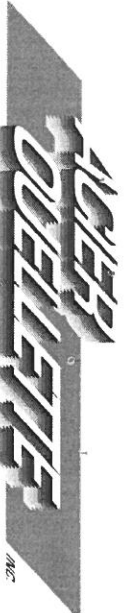
Att : CHANTAL LAVOIE Tél.: 613-632-5200  
Delivery Route 5

Customer N°	CL10001056
Date	2018/05/17
Delivery date	<b>2018/06/04</b>
Your order N°	39927
Processed by	Eric Kaehlert
Salesman	
Carrier	OUELLETTE VALLEYFIELD
Credit Terme	Net 30 Days
Page	1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 FLAT SS 1 X 2 SS303 NS FSS-12303 10712 1 X 12' LINE#10 AC16488-JG-2018-05-31 Heat: 274196	81.60	12.00	PI_CLB		12'5"		12.5'				JUN 04 2018 DAS 11 9-89
2 PLATE 4140 HEAT TREAT 1 NS P4140-1H 8796 4 PCS 1" SQ X 6' LINE#4 AC16486-EL-2018-05-31 HEAT : C703742	163.36	4.00	PI2		4X6'		24'				JUN 04 2018 DAS 11 9-89

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

935, Boul. du H vre  
Salaberry de Valleyfield (Qu bec) J6S 5L1  
T l.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

CO00090241

Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,  
Att : CHANTAL LAVOIE T l.: 613-632-5200  
Delivery Route 5

Instruction F-M

Delivery Route 5

Customer N  CL10001056  
Date 2018/05/17  
Delivery date 2018/06/04  
Your order N  39927  
Processed by Eric Kaehlert  
Salesman  
Carrier OUELLETTE VALLEYFIELD  
Credit Terme Net 30 Days  
Page 2

Product Description	Weight	qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
3 PLATE 4140 HEAT TREAT 2 3/4 NS P4140-234H 10335 2 PCS 5" X 72" LINE#7 AC-16486-FU-2018-05-31 Heat : 303186	561.55	5.00	PI2		2x6'		12'				JUN 04 2018 DAS 11 9-89
4 PLATE 4140 HEAT TREAT 1 1/4 NS P4140-114H 8506 1 X 6' LINE#8 AC16486-FU-2018-05-31 Heat : 300188	51.05	1.00	PI2		1x6'		6'				JUN 04 2018 DAS 11 9-89

NIR : R-109516-6



# DELIVERY - CLIENT

CO00090241

**ACIER OUELLETTE INC.**  
935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl.: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl.: 514-336-4246 Ext.: 866-456-4242

Customer N°

CL10001056

Date

2018/05/17

Delivery date

**2018/06/04**

Your order N°

39927

Processed by

Eric Kaehlert

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

## Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

## Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page

3

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
5 PLATE 4140 HEAT TREAT 2 1/4 NS P4140-214H 9352 2 X 6' LINE#13 AC16486-FUL-2018-05-31 Heat : 302967	275.67	3.00	PI2		2x6'		12'				JUN 04 2018 DAS 11 9-89
6 PLATE 4140 HEAT TREAT 3/8 NS P4140-38H 8806 2 PCS 4-1/2" X 72" LINE#14 AC16486-FUL-2018-05-31 Heat : 298132	68.89	4.50	PI2		2x6'		12'				JUN 04 2018 DAS 11 9-89

NIR : R-109516-6

Next Page...



**DELIVERY - CLIENT**

CO00090241

**ACIER OUELLETTE INC.**  
935, Boul. du Hâvre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl.: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl.: 514-336-4246 Ext.: 866-456-4242

**Customer N°** CL10001056  
**Date** 2018/05/17  
**Delivery date** 2018/06/04  
**Your order N°** 39927

**Billed to**  
DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

**Shipped to**  
\_\_\_\_\_, Ontario,  
**Processed by** Eric Kaehlert  
**Salesman**  
**Carrier** OUELLETTE VALLEYFIELD  
**Credit Terme** Net 30 Days

**Instruction** F-M  
**Delivery Route** 5  
**Att :** CHANTAL LAVOIE **Tél.:** 613-632-5200

**Page** 4

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only					
				CMD	EXP	B/O	IN	I	S	C	OUT	
7 ROUND 4140 ANNEALED 4 (R) R4140-4A 4963 2 X 6' LINE#6 AC16487-VA-2018-05-24 Heat : B41492	528.84	12.00	PI		2x6'		12'					

**Conditions :**

**Total Weight (Lbs) :** 1 730.96

**NIR :** R-109516-6

All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :	Verified By :	Delivered By :	Time
Customer's Signature			Date

**Total (\$CAD)**



90241  
**CERTIFICATE OF TEST**  
**CERTIFICAT D'ESSAIS**

16488N  
Page 01 of 02

Certification Date  
31-MAY-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number  
T380071

AC00016488

PART NUMBER/NUMÉRO DE PIÈCE

511235

**SOLD TO:** ACIER OUELLETTE INC. **SHIP TO:** ACIER OUELLETTE INC.  
**VENDU À:** DIVISION SALABERRY DE VALLEYFIELD **EXPÉDIENT:** DIVISION SALABERRY DE VALLEYFIELD  
935, BOUL. DU HAVRE 935, BOUL. DU HAVRE  
SALABERRY-DE- VALLEYFIELD QC J6S 5L1 SALABERRY-DE- VALLEYFIE QC J6S

Description: 303 CD ANN BAR ASTM A582

1 X 2 FLAT X 12" R/L

HEAT: 274196

ITEM: 511235

Line Total: 84 LB

Specifications:

AMS 5640 TYPE 1 V

ASTM A314 15

MIL S 862 B

ASTM A582 12

ASTM A320 17A

QQ S 764 B

ASME SA320 15

ASTM A370 17

CHEMICAL ANALYSIS

C	SI	MN	CR	MO	CU	NI	CO
0.038	0.33	1.68	17.42	0.5300	0.49	8.10	0.1440
P	S	ZR					
0.032	0.31	0.004					

RCPT: R449030

COUNTRY OF ORIGIN : ITALY

MECHANICAL PROPERTIES

	YLD STR	ULT TEN	%ELONG	%RED	HARDNESS
DESCRIPTION	KSI	KSI	IN 02 IN	IN AREA	BHN
	64.0	98.0	46.0	58.0	204

GRAIN SIZE :5 -

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport n'a pas été en contact avec le mercure pendant sa possession. JOANNE DESPRES

*Joanne Despres*

MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date  
31-MAY-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

AC00016488

Invoice Number  
T380071

PART NUMBER/NUMÉRO DE PIÈCE  
511235

<b>SOLD TO:</b>	ACIER OUELLETTE INC.	<b>SHIP TO:</b>	ACIER OUELLETTE INC.
<b>VENDU À:</b>	DIVISION SALABERRY DE VALLEYFIELD	<b>EXPÉDIÉ À:</b>	DIVISION SALABERRY DE VALLEYFIELD
	935, BOUL. DU HAVRE		935, BOUL. DU HAVRE
	SALABERRY-DE- VALLEYFIELD QC J6S 5L1		SALABERRY-DE- VALLEYFIE QC J6S

Description: 303 CD ANN BAR ASTM A582  
1 X 2 FLAT X 12' R/L

Line Total: 84 LB

HEAT: 274196 ITEM: 511235

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
THERMAL TREATMENT: OK  
ANNEALING 1940F .5 HR  
WATER  
MACRO: OK  
MICRO: OK

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES  


MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

90241  
8796  
Tél.: 514-2

Part

16486N

**Chemical certification**  
**Certification chimique**

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>52</b>	Country of origin / Pay d'origine <b>CHINA</b>	Date <b>11/16/17</b>	Heat / coulée <b>C703742</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>1.000</b>	Specifications <b>ASTM A829, ASTM A578 CLASS A</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.400</b>	<b>0.230</b>	<b>0.910</b>	<b>0.020</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.003</b>	<b>1.040</b>	<b>0.000</b>	<b>0.200</b>
Copper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>695.000 PSI</b>	<b>895.000 PSI</b>	<b>16.00</b>	<b>42.00</b>		<b>293 BHN</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

  
Prepared by: / Préparé par:

**Chemical certification**  
**Certification chimique**

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>12/30/17</b>	Heat / coulée <b>303186</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED; E + VD</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>2.750</b>	Specifications <b>ASTM A829/A829M</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.404</b>	<b>0.209</b>	<b>0.805</b>	<b>0.007</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.000</b>	<b>0.960</b>	<b>0.110</b>	<b>0.180</b>
Copper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0090 / 0.0190	0.0000 / 0.0000
Actuel % <b>0.200</b>	<b>0.037</b>	<b>0.018</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000 PSI</b>	<b>0.000 PSI</b>	<b>0.00</b>	<b>0.00</b>		<b>314 BHN</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

**Chemical certification**  
**Certification chimique**

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>04/28/17</b>	Heat / coulée <b>300188</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED; Q&amp;T E+VD</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>1.250</b>	Specifications <b>ASTM A829/A829M</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.400</b>	<b>0.227</b>	<b>0.814</b>	<b>0.008</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.001</b>	<b>0.970</b>	<b>0.240</b>	<b>0.170</b>
Copper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.178</b>	<b>0.035</b>	<b>0.025</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000 PSI</b>	<b>0.000 PSI</b>	<b>0.00</b>	<b>0.00</b>		<b>316 BHN</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

**Chemical certification**  
**Certification chimique**

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>12/30/17</b>	Heat / coulée <b>302967</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED; E + VD</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>2.250</b>	Specifications <b>ASTM A829/A829M</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.418</b>	<b>0.254</b>	<b>0.752</b>	<b>0.007</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.000</b>	<b>0.990</b>	<b>0.120</b>	<b>0.160</b>
Copper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.250</b>	<b>0.031</b>	<b>0.030</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000 PSI</b>	<b>0.000 PSI</b>	<b>0.00</b>	<b>0.00</b>		<b>321 BHN</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

**Chemical certification**  
**Certification chimique**

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>01/25/17</b>	Heat / Coulée <b>298132</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREAT</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>0.375</b>	Specifications <b>ASTM A829 / 8829M</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.427</b>	<b>0.248</b>	<b>0.785</b>	<b>0.006</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.001</b>	<b>0.970</b>	<b>0.250</b>	<b>0.190</b>
Copper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.136</b>	<b>0.036</b>	<b>0.027</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000 PSI</b>	<b>0.000 PSI</b>	<b>0.00</b>	<b>0.00</b>		<b>280/281 BHN</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:



90241

Dart

16487N

## CERTIFICATE OF COMPLIANCE / CERTIFICAT DE CONFORMITÉ

Order No. / No. Commande <b>AC00016487</b>	CUSTOMER / CLIENT <b>ACIER OUELLETTE INC</b>	Packing slip / No. d'expédition <b>L42943-01</b>	DATE <b>23-05-18</b>
MATERIAL ID# / No. MATÉRIEL <b>18-1045/1081</b>	GRADE / NUANCE <b>4140</b>	HEAT TREATMENT / TRAITEMENT THERMIQUE <b>ANNEALED / RECUIT ADOUCI</b>	HEAT / COULÉE <b>B41492</b>
PAYS D'ORIGINE:	UKRAINE		
SHAPE / FORME <b>Round / Rond</b>	SIZE / DIMENSION <b>4.000" in.</b>	SPECIFICATIONS <b>ASTM A 322, A 29/A 29M, A 751, A 304</b>	

## CHEMICAL COMPOSITION / ANALYSE CHIMIQUE

	Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
mini/maxi	0.380 0.430	0.150 0.350	0.750 1.000	0.035
actuel (%):	<b>0.420</b>	<b>0.250</b>	<b>0.830</b>	<b>0.014</b>
	Sulfur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
mini/maxi	0.040	0.800 1.100	0.000 0.250	0.150 0.250
actuel (%):	<b>0.020</b>	<b>0.920</b>	<b>0.100</b>	<b>0.210</b>
	Copper (Cu)	Vanadium (V)	Aluminium (Al)	Tungsten (T)
mini/maxi	0.350	----	----	----
actuel (%):	<b>0.130</b>	<b>0.010</b>	<b>0.033</b>	<b>0.000</b>

## MECHANICAL PROPERTIES / PROPRIÉTÉS MÉCANIQUES

Yield strength / Élasticité	Tensile / résistance à la traction	Elongation / allongement (%)	Reduction of area / surface (%)	surface hd / dureté
PSI	PSI			<b>180 BHN</b>

## TESTS JOMINY / JOMINY RESULTS

J	HRC	J	HRC	J	HRC	J	HRC
01	<b>57</b>	07	<b>55.1</b>	13	<b>48.5</b>	22	<b>43.4</b>
02	<b>56.8</b>	08	<b>54.2</b>	14	<b>48</b>	24	<b>42</b>
03	<b>56.5</b>	09	<b>53</b>	15	<b>46</b>	26	<b>38.5</b>
04	<b>56.5</b>	10	<b>49.2</b>	16	<b>45.1</b>	28	<b>38</b>
05	<b>56</b>	11	<b>49</b>	18	<b>44.2</b>	30	<b>37.2</b>
06	<b>56</b>	12	<b>48.7</b>	20	<b>43.5</b>	32	<b>36</b>

No weld repairs performed during the manufacturing of this product. We hereby certify that the above results have been verified and conform to the above mentioned specifications. Material is Mercury free, without radioactivity.

Aucune réparation exécutée par soudure durant la fabrication de ce produit. Par la présente nous attestons que les résultats ci-haut mentionnés ont été vérifiés et sont conformes aux spécifications. Pas de contact au Mercure, sans radioactivité.

Keith BALL - Branch Manager



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: mf-4140-S-0.375X4.500 PO / BATCH NO.: 039927/5077657  
 DATE: JUN 04 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 121  
 QUANTITY INSPECTED: 121  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375  
 THICKNESS RECEIVED: 0.375  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	<u>As per A829</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	<u>Heat # 298132</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> DATE: <u>11 JUN 04 2018</u> <u>9-89</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

**SPECIFICATION CONTROL DRAWING**

PURCHASE MATERIAL: AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 Rc  
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) x [W.WWW]  
WHERE "T.TTT" = THICKNESS IN INCHES  
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

<b>DART</b> AEROSPACE Hawthorn, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO.	REV
MT-4140-S	A
TOOL NO.	
DESIGNED BY: VM 2/13/2018 DRAWN BY: VM 02/13/2018 CHECKED BY: VM 02/13/2018 MFG REVIEW BY: DD 02/13/2018 APPROVED BY: ML 02/14/2018	
SHEET 1 OF 1	
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8 7 6 5 4 3 2 1

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4-2140-5-2.250X3.000 PO / BATCH NO.: 039927/5077656

DATE: JUN 04 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.250  
 THICKNESS RECEIVED: 2.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Astm A829</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Mat # 302767</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____		
DATE: <u>9-89</u> JUN 04 2018	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 Rc  
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T.TTT]x[W.WWW]  
WHERE "T.TTT" = THICKNESS IN INCHES  
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



Headquarters, Ontario, Canada

TITLE  
AISI 4140 / 4142 STEEL SHEET OR PLATE

PART NO. MT-4140-S

REV. A

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
DIMENSIONS IN PARENTHESES ARE METRIC EQUIVALENTS  
DIMENSIONS APPLY AFTER FINISHING

INITIALS AND DATE	
DESIGNED BY:	VM 2/13/2018
DRAWN BY:	VM 02/13/2018
CHECKED BY:	VM 02/13/2018
MFG REVIEW BY:	DD 02/13/2018
APPROVED BY:	ML 02/14/2018

TOLERANCES:  
FRACTIONS ± 1/16  
DECIMALS ± .005  
ANGLES ± .1°  
SURFACE ± .5°  
ROUGHNESS

SCALE: NTS SHEET 1 OF 1

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DART AEROSPACE LTD.

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303B1.000X2.000  
 DATE: JUN 04 2018

PO / BATCH NO.: 039927/307655

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 13  
 QUANTITY INSPECTED: 13  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	(N)	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	(N)	
CORRECT MATERIAL PER M-DRAWING	(Y)	(N)	<u>Aston A582</u>
CORRECT THICKNESS	(Y)	(N)	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(X)	(N)	<u>Heat # 274196</u>
CORRECT MATERIAL IDENTIFICATION	(Y)	(N)	
CORRECT M# ON THE MATERIAL	(Y)	(N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>		SIGNED OFF BY: _____	
DATE: <u>9-89</u>	<u>JUN 04 2018</u>	DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS BAR  
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION: ASTM A582

PART NUMBER: M303B11 TT1 X WWW.WWW  
THICK WIDTH

WHERE "T TT" = THICKNESS IN INCHES  
AND "WWW.WWW" = WIDTH IN INCHES

EG. 0.5" x 3.0" BAR = M303B0.500X03.000

RELEASED  
R 2010-02-02

B	REFORMAT DWG. ADD SPECS (ZN D8-1). REF PAR 08-0204	CP	10.01.05
A	NEW ISSUE	DS	02.05.29
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M303B			
TITLE 303 BAR			
SCALE NTS			
SHEET 1 OF 1			
REV. B			
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## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140S-1.250X2.000

PO / BATCH NO.: 038927/5077654

DATE: JUN 04 2018

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 6'  
 QUANTITY INSPECTED: 6'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	(N)	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	(N)	
CORRECT MATERIAL PER M-DRAWING	(Y)	(N)	Attn A809
CORRECT THICKNESS	(Y)	(N)	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	(N)	Heat # 300188
CORRECT MATERIAL IDENTIFICATION	(Y)	(N)	
CORRECT M# ON THE MATERIAL	(Y)	(N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>		SIGNED OFF BY: _____	
DATE: <u>9-8 JUN 04 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 Rc  
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T.TTT] x [W.WWW]  
WHERE "T.TTT" = THICKNESS IN INCHES  
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

<b>DART</b> AEROSPACE	
Hawthorn, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO.	REV
MT-4140-S	A
TOOL NO.	
DESIGNED BY: VM 02/13/2018 CHECKED BY: VM 02/13/2018 MFG REVIEW BY: DD 02/13/2018 APPROVED BY: ML 02/14/2018	
INITIALS AND DATE	
DESIGNED BY: VM 02/13/2018 CHECKED BY: VM 02/13/2018 MFG REVIEW BY: DD 02/13/2018 APPROVED BY: ML 02/14/2018	
TOLERANCES: FRACTIONS ± 1/8 ANGLES ± 5° SURFACE FINISH: RA ± 1.1 ROUGHNESS: SCALE: NTS	
SHEET 1 OF 1	
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8 7 6 5 4 3 2 1



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-S-2.75X5.000 PO / BATCH NO.: 039927/5077653  
 DATE: JUN 04 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.750  
 THICKNESS RECEIVED: 2.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Astm A829</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Heat # 303186</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>		SIGNED OFF BY: _____	
DATE: <u>9-89 JUN 04 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 Rc  
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T.TTT] x [W.WWW]  
WHERE "T.TTT" = THICKNESS IN INCHES  
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

<b>DART</b> AEROSPACE Hemelock, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO. MT-4140-S	REV A
TOL. NO.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES INTERPRET PER ASME Y14.5M-2009 DIMENSIONS APPLY AFTER FINISHING	
DESIGNED BY: VM 27/13/2018	INITIALS AND DATE
CHECKED BY: VM 02/13/2018	DATE
APPROVED BY: ML 02/13/2018	DATE
TOLERANCES: FRACTIONS ± 1/8 DECIMALS ± .005 ANGLES ± .1° HOLE POS. ± .01 SURFACE FINISH: X ± .1 ROUGHNESS	
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: nt-4140-B4.000  
 DATE: JUN 04 2018

PO / BATCH NO.: 038927/5077652

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12  
 QUANTITY INSPECTED: 12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 4.000  
 THICKNESS RECEIVED: 4.000  
 SHEET SIZE ORDERED: 21A  
 SHEET SIZE RECEIVED: 21A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) (N)	
CORRECT MATERIAL PER M-DRAWING	(Y) (N)	<u>Aston A29</u>
CORRECT THICKNESS	(Y) (N)	
PHOTO REQUIRED	(Y) (N)	
CORRECT REF # TO LINK CERT	(Y) (N)	<u>Heat # B41492</u>
CORRECT MATERIAL IDENTIFICATION	(Y) (N)	
CORRECT M# ON THE MATERIAL	(Y) (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-83 JUN 04 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-790	17.12.13	VM	ML

## SPECIFICATION CONTROL DRAWING

**PURCHASE MATERIAL :** AISI 4140 ROUND BAR  
 MINIMUM ROCKWELL C = 20 Rc  
 MAXIMUM ROCKWELL C = 38 Rc

**SPECIFICATION:** ASTM A29, AMS 6349, AMS 6382, AMS 6529

**PART NUMBER:** MT-4140-R-[D.DDD]  
 WHERE "D.DDD" = DIAMETER IN INCHES  
 EX. 4" ROUND BAR = MT-4140-R-4.000

**AISI 4140 ROUND BAR**

PART NO. MT-4140-R REV. A

TOOL NO.

DESIGNED BY: VM 17/12/13  
 DRAWN BY: VM 12/13/2017  
 CHECKED BY: ML 12/19/2017  
 MFG REVIEW BY: DP 12/20/2017  
 APPROVED BY: ML 12/20/2017


SCALE: NTS SHEET 1 OF 1

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AISI 4140 ROUND BAR  
 MINIMUM ROCKWELL C = 20 Rc  
 MAXIMUM ROCKWELL, C = 38 Rc

ASTM A29, AMS 6349, AMS 6382, AMS 6529

MT-4140-R-[D.DDD]  
WHERE "D.DDD" = DIAMETER IN INCHES  
EX. 4" ROUND BAR = MT-4140-R-4.000

TITLE	 NEWCASTLE, ONTARIO, CANADA	PART NO. 41140-R	SERIAL A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS APPLY AFTER FINISHING			
				INITIALS AND DATE DESIGNED BY: VML 12/12/17 DRAWN BY: VML 12/13/2017 CHECKED BY: MML 12/19/2017 APPROVED BY: DP 12/20/2017	TOLERANCES: XXX ± .005 XX ± .01 X ± .1	FRACTIONS: ± 1/8 SURFACE ROUGHNESS	SCALE: NTS SHEET 1 OF 1
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-B-1.000X1000  
 DATE: JUN 04 2018

PO / BATCH NO.: 039927/3077651  
5077677 <sup>x12</sup>

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 24  
 QUANTITY INSPECTED: 24  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Aston A829</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # C703742</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>9-89 JUN 04 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 Rc  
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T.TTT] x [W.WWWW]  
WHERE "T.TTT" = THICKNESS IN INCHES  
WHERE "W.WWWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



Newbury, Ontario, Canada

TITLE  
AISI 4140 / 4142 STEEL SHEET OR PLATE

PART NO. MT-4140-S REV. A

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
DRAWN BY: VM 02/13/2018  
CHECKED BY: VM 02/13/2018  
INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

DESIGNED BY: VM 21/3/2018  
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INFO REVIEW BY: DD 02/13/2018  
APPROVED BY: ML 02/14/2018

ML

8 7 6 5 4 3 2 1